



## PATENT ABSTRACTS OF JAPAN

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(54) **B MODE PROCESSOR AND POST  
DETECTION IMAGE PROCESSING METHOD  
FOR ULTRASONOGRAPH**

## (57) Abstract:

PROBLEM TO BE SOLVED: To provide a method and a device for performing the adaptive emphasis of B mode images at the time of a post-detection image processing in an ultrasoniograph system.

SOLUTION: In this B mode processor, a low-pass filter 52a for smoothing speckles and a high-pass filter 50 for performing edge emphasis are arranged at parallel signal passages connected to the output of an envelope detector. The signals of the signal passage of the high-pass filter 50 are passed through a logarithm compression means 48a before the high-pass filter 50 and the signals of the signal passage of the low-pass filter 52a are passed through the logarithm compres-

sion means 48b after the low-pass filter 52a. Respective weighting coefficients are added to the respective output signals of the low-pass filter 52a and the high-pass filter 50 by an adaptive weighting means 56. The weighted signals are added 60 and then, inputted to the low-pass filter 52b for aliasing prevention before decimation and scanning conversion by optional selection.

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